DoD Perchlorate Team Briefing
To
Mr. Gary D. Vest
Principal Assistant Deputy Under Secretary DoD
7 March 2000

Agenda

6am - 1:30pm PST

Location: Regional Environmental Office
525 Griffin St, Ste 505
Dallas, Texas 75202
214-767-4672 (fax: 4661)

0800-0830 Welcome and Introduction (Lt Col Dan Rogers: LRAFB, Arkansas)

0830-1000 Overview and Background on the Perchlorate Partnering Efforts:

The Department of Defense has been using ammonium perchlorate as a primary ingredient in solid rocket motors since the late 1940's. Army, Air Force and Navy systems, including NASA have existing systems that utilize perchlorate as a solid fuel. The teaming efforts with various states (California, Arizona, Nevada, Utah, Texas, New Mexico, West Virginia), EPA (OW, OSWER, NCEA and the various Regional offices), the Perchlorate Study Group (Industry – Aerojet, Kerr McGee, Lockheed and other representatives of the primary users and manufacturers) has helped to establish the Inter Agency Perchlorate Steering Committee which was formed in January 1998. In January 00, the Air Force became DoD lead agent representing the interests of the military for all perchlorate issues.

1000-1050 Toxicology and Human Health Initiatives (Dr. Dave Mattie: WPAFB, Ohio)

In March of 1997, Toxicology Excellence for Risk Assessment (TERA) held an external peer review evaluating the "state of the science" on available perchlorate toxicology information. By the end of the session, EPA scientists and their civilian counterparts recognized the need for developing a complete database and recommended a number of base-line toxicology studies. In May, 1997, an expert panel of toxicology experts met in Cincinnati, Ohio and recommended 8 studies to be completed in order to fill data gaps on the existing work. All 8 studies were completed and in February 99, the EPA OSWER held an external peer review, evaluating the data received and requested additional refinement prior to recommending a proposed reference dose value. The additional studies have been coordinated and funded by DoD and the PSG with help from EPA's pathology working group. Data delivery is expected in June 00 with a final EPA peer review slated for Fall 00.

1100-1150 Analytical Detection Methods and Capabilities (Lt Eric Eldridge: Wright Patterson AFB, Ohio)

The beginning of any search for environmental contamination starts with the capability to detect the compound at the lowest possible levels. Prior to January 1997, the technology for detecting perchlorate in groundwater was designed and used by Aerojet in Rancho Cordova, California. The MDL was 400 parts per billion. Aerojet's science and technology team revised their methodology and increased the capability for detection to 100 ppb. Dr Howard Okamoto from California's DHS further revised the technology to the current MDL of 4 ppb. The Air Force lab at Wright Patterson validated both Aerojet and California's protocols.

1200-1300 Working Lunch

1230-1320 Eco System Impacts (Cornell Long and Dr Ron Porter: Brooks AFB, Texas)

While direct exposure to humans is our immediate and primary focus, the potential for indirect exposure through consumption of exposed animals or plants is just as important to investigation. Initial screening studies completed in the summer of 1998 was the start of a number of tests, which seek to answer the question how perchlorate interacts in the environment. Work in progress includes a site specific evaluation at 5 specific locations throughout the United States and a farm or market basket analysis of certain water based crops to include lettuce, citrus, milk and soy. Native American Indian Tribes who grow lettuce have raised questions about the impacts of using Colorado River water for crop irrigation.

1330-1420 Treatment Technology Innovations (Jim Hurley and Stan Rising: Tyndall AFB, Florida)

If contamination poses a threat to the environment, cleanup is the long-term challenge. Through a CRADA with industry, the Tyndall AFB research group has participated in a joint project to reclaim and resell perchlorate removed from solid rocket systems. They have also found a mechanism to reduce perchlorate from industrial waters. This innovation is a start to the challenge of finding the appropriate methods for removing perchlorate from ground and drinking water sources while preserving the nature of the source water for its intended purpose. Mr. Hurley and his staff also coordinate efforts with the American Water Works Association Research Foundation (AWWA-RF) on potential long-term treatment technology research.

1430-1500 Public Affairs and Communications (Larry Glidewell: AFMC/PA Wright Patterson AFB, Ohio)

1500-1530 Industry Perchlorate Study Group Participation (Mike Girard: Aerojet Sacramento, California)

The Perchlorate Study Group consists of representatives from the defense industry who use, transport, manufacture, or produce ammonium perchlorate primarily for the federal government. The PSG has been instrumental in efforts to produce an effective partnership with state and federal regulators as well as the Department of Defense. The partnership is proactive, interactive, and serves the interest of all parties. Aerojet is the only company that has an approved perchlorate treatment process "on-line". Early results are optimistic and reduce perchlorate in ground water from 8000 ppb to below non detect.

1530 - ? Planning for the Future – Thoughts and Discussion

This agenda is current as of 1500 hours 3/1/00/Lt Col Dan Rogers/DSN:731-8162/drogers@jag.af.mil